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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/563,296

06/14/2006

Oded M Golan

GOLAN8

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BROWDY AND NEIMARK, P.L.L.C.
624 NINTH STREET, NW
SUITE 300
WASHINGTON, DC 20001-5303

EXAMINER

ALSOMIRI, ISAM A

ART UNIT

PAPER NUMBER

3662

MAIL DATE

DELIVERY MODE

01/22/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/563,296	Applicant(s) GOLAN ET AL.	
	Examiner ISAM ALSOMIRI	Art Unit 3662	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 November 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) 3 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 2 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 January 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Simeone et al US 5,379,966 in view of Busse et al US 2006/0284050.

Referring to claim 1, Simeone discloses in figure 1 a system comprising: a search and track radar and associated processing means and communication channel; the radar configured to detect and track at least one target (34, 32); in response to detected at least one target, at least one interceptor (28, 34) is launched towards said at least one target; the radar are configured to measure and track the at least one target and the at least one interceptor, the processing means are configured to utilize the measurements to calculate interceptor maneuvers required to overcome errors and bring the interceptor close to a target; the maneuver commands are transmitted to the interceptor using the communication channel (see Abstract); the interceptor is equipped with kill mechanism designed to destroy a target warhead when said interceptor approaches the target.

Simeone does not teach the claimed synchronized network, the target and interceptor ranges are accurately measured by said at least three radars in the synchronized network, giving rise to synchronized accurate range measurements; the

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synchronized measurements are combined by range triangulation to provide accurate target and interceptor position measurements irrespective of the angular measurement accuracy of each radar. However, having a network of radar system to form a triangulation on the target is well known to improve accuracy. Busse teaches ground based launch detection system made up of more than three detection units to detect any missile with high accuracy; the detection units form a wireless network that overlap to cover the entire area and detect the target more accurate using triangulations (see Abstract, figure 19, paragraph [0038]); Which read on the claimed synchronized network of three or more radars. It would have been obvious to modify Simeone to include multiple detection units to form a synchronized network and to use triangulation to track the target and the missile with better accuracy.

Referring to claim 2, the combination of Simeone and Busse teaches using range triangulation that provides accurate target and interceptor position measurements which do not deteriorate linearly with range and said interceptor does not employ on-board seeker.

Response to Arguments

Applicant's arguments filed November 12, 2008 have been fully considered but they are not persuasive. Regarding claim 2, applicant argues that both Simeone and Busse do not teach using range triangulation, and that Busse teaches using angular triangulation "Therefore, even assuming for the sake of argument only, that one of

ordinary skill in the art would have found it obvious to combine the teachings of Simeone and Busse, the resulting combination would not have been the claimed invention, since neither reference teaches the use of range triangulations". In response: Busse is combined to teach the idea of using the sensor already taught in Simeone in a network of sensors to triangulate on the target using the tracking data in Simeone, which includes the range of the target. Therefore, the combination of Simeone and Busse teaches the claimed range triangulation. Further, both angular triangulation or range triangulation techniques are very well known methods and are also known to be used for tracking targets. Therefore, from the combination Simeone and Busse and the known techniques of range or angular triangulation, it would have been obvious for an ordinary skill in the art to use either one. Therefore, the rejections are maintained.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ISAM ALSOMIRI whose telephone number is (571)272-6970. The examiner can normally be reached on M-TH 6am-3pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Tarcza can be reached on 571-272-6979. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

January 21, 2009

/ISAM ALSOMIRI/
Primary Examiner, Art Unit 3662